

DOCUMENT RESUME

ED 088 661

SE 010 511

AUTHOR Hardee, J. Gilbert; Satterthwaite, Adaline P.
 TITLE Country Profiles, Pakistan.
 INSTITUTION Columbia Univ., New York, N.Y. International Inst.
 for the Study of Human Reproduction.; Population
 Council, New York, N.Y.
 SPONS AGENCY Ford Foundation, New York, N.Y.
 PUB DATE Mar 70
 NOTE 10p.
 EDRS PRICE MF-\$0.75 HC-\$1.50
 DESCRIPTORS *Biographies; Demography; *Developing Nations;
 *Family Planning; National Programs; Population
 Distribution; Population Growth; *Population Trends;
 Social Sciences
 IDENTIFIERS *Pakistan

ABSTRACT

A profile of Pakistan is sketched in this paper. Emphasis is placed on the nature, scope, and accomplishments of population activities in the country. Topics and sub-topics include: location and description of the country; population (size, growth patterns, age structure, urban/rural distribution, ethnic and religious composition, migration, literacy, economic status, future trends); population growth and socio-economic development (relationships to national income, size of the labor force, agriculture, social welfare expenditures); history of population concerns; population policies; population programs (objectives, organization, operations, research and evaluation); private efforts in family planning; educational and scientific efforts in population; and foreign assistance for family planning activities. (RH)

Country Profiles

Issued by The Population Council
and The International Institute
for the Study of Human Reproduction,
Columbia University

March 1970

U.S. DEPARTMENT OF HEALTH,
EDUCATION & WELFARE
NATIONAL INSTITUTE OF
EDUCATION

THIS DOCUMENT HAS BEEN REPRO-
DUCED EXACTLY AS RECEIVED FROM
THE PERSON OR ORGANIZATION ORIGIN-
ATING IT. POINTS OF VIEW OR OPINIONS
STATED DO NOT NECESSARILY REPRESENT
OFFICIAL NATIONAL INSTITUTE OF
EDUCATION POSITION OR POLICY.

PAKISTAN

THIS profile was prepared by Dr. J. Gilbert Hardee, Social Science Advisor, and Adaline P. Satterthwaite, M.D., both Population Council Advisors at the National Research Institute of Family Planning, Karachi, Pakistan. It is published here with the approval of the Pakistan Family Planning Council.

Location and Description

Pakistan is an Islamic state created in 1947 by the partition of the Indian subcontinent. It is composed of two provinces separated by 1100 miles of Indian territory that, not surprisingly, differ markedly in climate, customs, languages, and ethnic composition.

East Pakistan is formed by the Ganges-Brahmaputra delta, which has an average rainfall of over 60 inches. During the monsoon, from June to September, much of the land is flooded. Jute and rice are the main crops; the former is the major export item and foreign currency earner. The majority of Pakistan's population are Muslim; most of the country's 10 million Hindus live in East Pakistan. In 1968 it was estimated that 56 per cent of the 127 million Pakistanis lived in the East on a land area that was only 15 per cent of the total 563,000 square miles. Population density in cultivated areas is more than 1,500 persons per square mile. Bengali is the predominant language.

West Pakistan, by contrast, is a land of arid desert and irrigated fields stretching from the Arabian Sea to the Himalayas. The main sources of water are three rivers which form part of the Indus basin. In some areas the average annual rainfall is below five inches. The major crops are wheat

and cotton. Population density in the cultivated areas is approximately 400 persons per square mile. The people speak one of several major languages—Sindhi, Punjabi, Balochi, Makrani or Pushto—though Urdu is the official language, spoken mainly in the cities, and the medium of instruction in the schools. English remains the important "link" language between the East and West.

Population Size

In population size Pakistan, with an estimated 127 million, ranks fifth in the world. According to the 1961 Census the population increased from 45.5 million in 1901 to 75.8 million in 1951 and to 93.8 million in 1961. Estimates since 1961 indicate underestimation in the Census. The Central Planning Commission has estimated that by July 1965 the population had increased to 115.7 million.

Like most developing countries, Pakistan has unreliable demographic data. The existing vital registration system is inadequate. To show major demographic and socio-economic characteristics of the population one must rely on both census and survey data.

Age at marriage. Age at marriage has traditionally been low in the Asian subcontinent. Estimated age

at marriage for women in Pakistan in 1962-63 was 14.9 years in the East and 19.1 years in the West. However, the current trend appears to be in the direction of a higher age at marriage. The median age at marriage for men in both wings is five to six years above that for women. The number of females of reproductive age (15-49) in 1965 (the year the current Family Planning Program started) was 20.4 million. With approximately 85 per cent of all women in this age category married, the number of married women was about 17.4 million.

GROWTH PATTERNS

According to Census data the annual rate of growth of the population for the first three decades of this century was less than 1.0 per cent. The 1961 Census showed an average annual increase of 2.2 per cent during the previous decade. The Population Growth Estimation project (PGE), a sample registration-survey conducted from 1962 to 1965, showed an average annual growth rate of 3.3 per cent for 1962 to 1965. For purposes of preparing the Family Planning Scheme for 1965-70, the government assumed a growth rate in 1965 of 3.0 per cent.

By use of the Chandrasekar-Deming formula for matched events, data from the PGE for 1962-65 indicate an average crude birth rate of 52 per 1000 (53 in East Pakistan and 52 in West Pakistan). For purposes of preparing the Third Five-Year Plan (1965-70), the government assumed a birth rate of 50 per 1000.

The death rate has been decreasing rapidly over the past few decades. While mortality statistics are even less satisfactory than fertility statistics, some earlier estimates are available. Kingsley Davis estimated the

average annual death rate for Pakistan and India at 36 per 1000 during the 1920's and 31 during the 1930's. In 1965 the Pakistan government assumed a death rate of 20 in its Family Planning Scheme (but it should be noted that the Planning Commission assumed a higher rate). The PGE data (based on the Chandrasekar-Deming correction formula) for 1962-65 give a rate of 19 for Pakistan (20 for the East and 18 for the West).

AGE STRUCTURE

In 1961 44.5 per cent of the population was under 15 years of age and 16.3 per cent was 45 years of age or over. The proportion under age 15 as adjusted for underenumeration indicates an even heavier dependency: 46.8 per cent.

RURAL/URBAN DISTRIBUTION

In 1961 86.9 per cent of the population was classified as rural, with the rural predominance particularly high in East Pakistan (95 per cent). Because of migration from rural to urban areas the rate of growth in the urban segment is higher than that in the rural segment.

ETHNIC AND RELIGIOUS COMPOSITION

The Pakistanis are descendants of several racial and subracial groups which invaded the subcontinent over the past 5,000 years, mainly from central and western Asia. These included Dravidians, Aryans, Greeks, Persians, Afghans, Arabs, and Monghuls. The dominant racial type in Pakistan is Indo-Aryan.

In 1961 88 per cent of the total population was Muslim, 11 per cent Hindu, 0.8 per cent Christian, and 0.4 per cent other. In East Pakistan about 80 per cent were Muslim and 18.4 per cent Hindu. In the West, Muslims comprised over 97 per cent of the population.

LITERACY

The literacy rate of the population 5 years of age and over in 1961 was only 19.2 per cent. Wide variations in literacy rates occur between the rural and urban population, between males and females, and between East and West. For East Pakistan the literacy rate for urban males was 54.8 per

cent; for urban females, 31.9 per cent; for rural females, 9.7 per cent. For West Pakistan literacy rates were 33.0 per cent for urban males; 21.2 per cent for urban females; and 3.2 per cent for rural females.

ECONOMIC LEVEL

At the beginning of the Third Five-Year Plan in 1965 the estimated per capita gross national product (GNP) was Rupees 424 (US\$90). The increase, however, between 1959-60 and 1967-68 has been from Rs. 318 to Rs. 515.

FUTURE TRENDS

Assuming declining mortality and constant fertility, population estimates for 1985-86 range from 160 to 247 million; more recent and reliable projections suggest a range of from 193 to 247 million.

Population Growth and Socio-Economic Development

The First Five-Year Plan, 1955-60, prepared by the National Planning Board, was officially implemented in 1958; it was never given vigorous top-level support. The Second and subsequent Plans have been the responsibility of the Central Planning Commission, which was established in 1958. Beginning with the Second Plan, 1960-65, a firm recognition was made of the intricate relationship between population growth (assumed for that period to be 2.6 per cent per annum) and socio-economic development.

RELATIONSHIP TO ECONOMIC GROWTH

In 1965 the Planning Commission developed a 20-year Perspective Plan for 1965-85 based on population projections that subsequently proved to be too low. The Plan assumed annual population growth rates for succeeding five-year periods to be 2.6 for 1965-70, 2.7 for 1970-75, 2.6 for 1975-80, and 2.2 for 1980-85. Subsequent to the original projections, the Planning Commission has revised upwards its estimate of the current rate of population growth to 2.8 per cent in 1968, and this is still lower than the rate indicated by the Population Growth Estimation surveys.

The Perspective Plan for 1965-1985 has the following targets: a growth in

GNP from Rs. 44 billion to Rs. 145 billion; a decrease in agriculture's contribution to the GNP from 47.5 per cent to 31 per cent; an increase in the contribution of mining, manufacturing and public utilities to the GNP from 13.4 per cent to 23 per cent; an increase in per capita income from Rs. 424 (U.S.\$90) to Rs. 710 (U.S. \$148). In order to achieve these targets it is projected that the GNP should grow during these successive five-year periods by 5.4, 6.0, 6.5, and 7.0 per cent, respectively. The Planning Commission reports to 1967-68 indicate that these targets during the first three years were surpassed. The GNP increased by 13.3 per cent in 1967-68. A large part of the increase can be attributed to higher agricultural output, in part tied to the increased utilization of new types of wheat in West Pakistan and new types of rice in East Pakistan. For 1967-68 the agricultural sector increased its output by 16 per cent. This change marks a significant increase over previous growth rates. From 1947 to 1960 agriculture increased by only 1.3 per cent per annum but increased to 4.1 per cent per annum for the period 1960-1965. Nevertheless, all of the projections for economic development have been based upon a population growth rate considerably lower than what Pakistan is experiencing at the present time.

RELATIONSHIP TO SIZE OF LABOR FORCE

The 31 per cent rate of participation in the labor force (the labor force as a percentage of the total population) is low in comparison with that of many other countries. This is particularly true of the rate for females. A major factor in the low participation rate is the high dependency ratio. For example, in 1961 almost 47 per cent of the population was under 15 years of age. In 1965 the labor force included about 37.3 million persons, 21.8 per cent of whom were without regular employment (unemployed or underemployed). The unemployment rate is much higher for the East than for the West. In the Twenty-Year Perspective Plan the anticipated size of the labor force by 1985 is 30 million, but recent estimates set the number

at from 71 to 74 million. The Central Planning Commission anticipates the need to create jobs for approximately 27 million additional persons by 1985 in order to reduce unemployment to around 5 per cent by that time, if the labor force increases to 60 million only.

RELATIONSHIP TO SOCIAL WELFARE EXPENDITURES

Public education. In 1965 the Planning Commission estimated that 45 per cent of the primary age children (ages 6-10) were enrolled in school, and it set a goal of 75 per cent enrollment for 1970. The long-range goal of the Twenty-Year Perspective Plan is to attain 100 per cent enrollment of school age children in grades 1 through 8 by 1985. The magnitude of the task of achieving these educational goals can be seen from either conservative or liberal estimates of population growth. With 16.6 million primary age children in Pakistan in 1965, the number by 1985 is estimated, by the U. S. Census Bureau, to range from 26.0 million to 33.7 million. With 13.9 million secondary age children in 1965 (ages 11-15), the estimated number by 1985 ranges from 21.3 million to 27.4 million. Expenditures for education have increased dramatically, especially during the 1960's. Per capita public expenditure on education has risen from Rs. 3 in 1960-61 to almost Rs. 10 in 1965-66.

Health. One index of a nation's medical facilities is the ratio of medical personnel and hospital beds to the population. In 1965 the Planning Commission estimated one doctor for each 7,300 persons, and one lady health visitor (public health nurse) per 110,000 persons. With assumed declining fertility and constant mortality the projected need for additional medical and paramedical personnel by 1985 is 54,665 doctors, 38,720 nurses, and 20,010 lady health visitors. Nearly 176,000 additional hospital beds would be required.

History of Population Concerns

The new nation of Pakistan came into existence as a dominion within the British Commonwealth in August 1947. The first efforts at family planning in Pakistan were begun by a few dedicated women, wives of govern-

ment and business leaders, who had been participating in voluntary relief activities among the thousands of refugees who came across the border from India. Begum Raana Liaquat Ali Khan, wife of the first Prime Minister, founded the Pakistan Women's Voluntary Service and the All-Pakistan Women's Association, which has sponsored a multiplicity of social welfare projects. In 1952 family planning services were organized in Karachi, Lahore, and Dacca and in 1953 Family Planning Associations were officially formed. In 1954 the Family Planning Association of Pakistan was affiliated with the International Planned Parenthood Federation.

FIRST FIVE-YEAR PLAN (1955-60)

The First Five-Year Plan for the Plan Period 1955-60 was completed in 1956 but was not implemented until 1958. This marked the first comprehensive, integrated, and realistic attempt at planning in Pakistan. Statistical data for planning purposes were limited to the 1951 Census and to some surveys conducted by the Ministry of Labor and the Central Statistical Office. The Plan assumed a population growth rate as low as 1.4 per cent, but allocated Rs. 500,000 in support of the family planning activities of the voluntary agencies. In February 1958 the Family Planning Association met with the Director General of Health, Central Health Ministry, Directors of Health Services of the two Provinces, and representatives of the Medical Directorate Military Headquarters, All-Pakistan Women's Association, and the National Social Welfare Council to establish a National Family Planning Board with the Director General of Health as Chairman. It was decided that the Family Planning Association would be responsible for the implementation of the program through their own clinics and through the Military, Naval, Air Force and Railways Hospitals in West Pakistan. The rural population was approached through cooperation with the Village Aid Administration. Provincial Family Planning Boards were set up in the Health Directorate in each province to approve projects and allocate funds. In March 1958 the first National Conference on Planned Parenthood was organized in Lahore by the

Family Planning Association of Pakistan and was attended by ten delegates each from India and Ceylon.

Increasing concern for population issues was indicated in many ways during this period. In January 1959 President Ayub Khan spoke at a Food Conference in Lahore and noted the problems of overpopulation. In September 1959 a seminar on "Population Growth and Economic Development" with special reference to Pakistan was held at the Pakistan Institute of Development Economics (PIDE). Mr. M. Shoab—then President of the Board of Governors of PIDE, more recently the Finance Minister of Pakistan, and currently the Vice President of the World Bank—inaugurated the seminar and indicated that the government had plans for family planning.

In 1959 the Population Council was requested by the Director General, Health, to send a mission to survey the situation and make recommendations to the Ministry of Health. Dr. Marshall C. Balfour and Dr. Paul A. Harper visited Pakistan and prepared a report entitled, *Report and Recommendations to Ministry of Health and Social Welfare, Government of Pakistan, for a National Family Planning Program*, in January 1960.

SECOND FIVE-YEAR PLAN (1960-65)

In the Second Five-Year Plan (1960-65) an amount of Rs. 30.5 million was provided for family planning, to be implemented through the existing Health Services. A National Family Planning Directorate was instituted at the Centre and similar boards were set up in the Provinces. Up to June 1964, 1,259 doctors, 251 lady health visitors, and 204 nurses and midwives were trained in family planning techniques. In 1962 the National Research Institute of Family Planning (NRIFP) was set up at the Centre to conduct research on approaches and methods to be employed in the family planning program, and five Training-cum-Research Institutes were set up in the two Provinces and supplied with mobile audio-visual units to do motivational work. Of the 4,000 family planning clinics proposed in the Scheme, 2,750 (1,161 in East Pakistan and 1,589 in West Pakistan) were established.

The achievements of this program fell much below expectations for a number of reasons: inadequate allocations for supplies, poor distribution of supplies, lack of field workers, absence of newer contraceptive technology, and reliance upon already overburdened health personnel.

Foreign assistance for the family planning activities in Pakistan was instituted during this period, however. This included the assistance of the Population Council in cooperation with the University of California School of Public Health for a pilot project in health education in Dacca (CALHEP) and with Johns Hopkins University's School of Hygiene and Public Health for a medical social research project (MESOREP) in Lahore. The Swedish International Development Authority (SIDA), through the Sweden Pakistan Family Welfare Project, assisted in training personnel and establishing model clinics at the Training-cum-Research Institutes (TeRI's) in Dacca, Chittagong, Rajshahi, Hyderabad, and Lahore. Additional family planning studies were carried out at the National Research Institute of Family Planning and the Pakistan Academy for Rural Development (PARAD) with foreign assistance from the Population Council and the Ford Foundation. These studies resulted in the development of the Family Planning Program for the Third Five-Year Plan.

The Second Plan Period, 1960-1965, was also a period of growth in demographic research. In 1961 the Pakistan Institute of Development Economics and the Central Statistical Office with the assistance of the Population Council developed the Population Growth Estimation survey. Major and subsequent support for this project came through the United States Government, National Center for Health Statistics. It is this study which has provided the most reliable estimates of vital events in Pakistan.

All of these events culminated in the development of a firm population policy in the Third Five-Year Plan.

Population Policy

In drawing up the Third Five-Year Plan (1965-70) a definite population policy was formulated:

The improvement in living standards, as reflected in the earlier projections of per capita incomes, rests heavily on certain assumptions regarding the growth of population. . . . With the planned improvement in health facilities and nutritional standards, the mortality rate is likely to decline fairly rapidly. Unless it is checked by a fall in the fertility rates, the population growth rate could easily be pushed beyond 3 per cent per annum. If this happens the population will double itself by 1985. Such an increase would defeat any attempt to raise per capita incomes by a significant amount. A vigorous and broadly-based program of family planning is therefore an integral part of the strategy of the Perspective Plan.

To implement this population policy, a vigorous program for family planning was developed through the cooperation of a number of agencies. Early planning was carried out by the Pakistan-Sweden-America Advisory Coordinating Group, which included representatives from SIDA, the Population Council, and the Ministry of Health. Final development of the plan was carried out under Mr. Enver Adil, CSP, SQA, who was named by President Ayub in September 1964 to be the Commissioner of Family Planning. This new and expanded Family Planning Program went into effect in July 1965 with a proposed budget of Rs. 284 million (US\$60 million) for the Third Five-Year Plan.

Population Programs

OBJECTIVES

The objective of the Family Planning Scheme, as envisioned in the Third Five-Year Plan (1965-70), was to reduce the birth rate from 50 to 40 per 1,000 by protecting 25 per cent of the nation's estimated 20 million fertile couples by 1970. This was to be achieved with an administrative program, oriented to the general public through efficient distribution of supplies and providing motivation by person-to-person contact to supplement the clinical-medical activity.

ORGANIZATION

The family planning program has been directed by a Central Family

Planning Council headed by the Health Minister and composed of central and provincial secretaries of health and finance. Originally, a Commissioner of Family Planning was the Secretary of the Council and the Joint Secretary to the government of Pakistan in a newly created division of family planning in the Ministry of Health, Labor and Social Welfare. In 1968 the Commissioner of Family Planning was promoted to the post of Secretary, Family Planning Division, Government of Pakistan, and certain additional responsibilities were assigned to the division for demographic statistics and contraceptive standardization and testing. At that time the Ministry was renamed Health, Labor, and Family Planning.

With the present Martial Law administration there has been a new reorganization in the Family Planning Division. The Family Planning Division reverted to the Ministry of Health, Labor and Family Planning, and a new Secretary of the Ministry was assigned, Mr. Ali K. M. Ahsan. The Family Planning Division within the Ministry is headed by a Joint Secretary/Commissioner, Mr. Wajihuddin Ahmad. In July 1969 Dr. A. M. Malik was appointed Minister of Health, Labor and Family Planning.

The program is implemented through Provincial Family Planning Boards and District Family Planning Boards. At the district level, the Secretary of the Board, the Publicity-cum-Executive Officer, serves as chief administrator. He is assisted by a District Technical Officer (a medical doctor), Family Planning Officers (FPOs, one for each three Union Councils¹), Union Council Secretaries/Thana Family Planning Assistants, Lady Organizers (one for each two villages), and distribution agents for the sale of conventional contraceptives.

OPERATIONS

The program operates on a decentralized basis, with authority delegated to all levels. The grass roots worker is the traditional village midwife or

¹ A Union Council is a division of local government; chairmen of the Union Councils form the District Council.

"dai." Mass media at the district level provide additional local support for family planning. Performance targets are set for personnel; and monetary incentives remunerate medical workers for services performed and compensate field workers for referring clients.

Information and education. To support the efforts of the grass roots family planning workers, mass communication techniques have been extensively employed. The Scheme provides for an allocation of Rs. 12.3 million (US\$2.56 million) for publicity, representing 4.2 per cent of the total allocation for family planning. Much support has come from the Sweden Pakistan Family Welfare Project, which has assisted in the development and printing of numerous posters, leaflets, booklets, manuals, calendars, matchbox ads, filmstrips, etc. There has also been an increasingly important utilization of the radio in support of family planning, growing interest in family planning education films, and direct mailing of literature. A commemorative postage stamp was issued in January 1969.

Mass publicity is primarily the responsibility of the Provincial Family Planning Boards, though some decentralization to the district level is permitted, particularly in the West, in order to encourage local flavor. In June 1968 a National Family Planning Communications Committee was formed to direct and coordinate publicity plans, goals, and evaluation.

Personnel. Clinical contraception, that is, IUD insertion, vasectomy, and tubeligation, require medical personnel, usually part-time family planning doctors employed by the Health Department, who carry out family planning procedures on a fee-for-service basis. Because of the scarcity of female doctors to perform IUD insertions in the rural areas (where only female physicians are acceptable for this procedure), Lady Health Visitors (LHVs) and a new cadre of Lady Family Planning Visitors (LFPVs) have been trained. (LHVs are public health midwives with 27 months of training after matriculation; LFPVs are uni-purpose family planning workers who receive a training of 14 months of theory and practice in family planning.) It is proposed

eventually to train sufficient paramedical personnel to post one LFPV for each three Union Councils. Seventy-five per cent of the IUD insertions done in the past year have been performed by these paramedicals. Since 80 per cent of the population lives in the rural areas, a system of mobile clinics or IUD camps has been devised. Each FPO is assigned a jeep once or twice a week to be used for visiting the villages in his circle, arranging for camps, and transporting the LFPVs to the villages to perform the IUD insertions in the village homes. Pressure to achieve targets for new insertions has sometimes prevented periodic return for follow-up. In East Pakistan the LFPVs are posted at the Thana headquarters and visit several subcenters in rotation each week.

The field staff, which numbered more than 90,000 (including commissioned agents to sell conventional contraceptives) as of June 30, 1968, provided coverage for about 80 per cent of the population. Since July 1968, 38 districts in West Pakistan and 17 in East Pakistan have now been covered.

Remuneration: The Lady Organizers (dais)² receive a retainer fee of Rs. 15 per month (US\$3.00), and a referral fee of Rs. 2.50 (US\$.50) for each client who has an IUD inserted. The distribution agents receive 80 per cent of the selling price of the conventional contraceptives. These are mostly condoms and foam tablets which sell for 25 paisas (US\$.05) per dozen.

Training and supervision: Pre-service training for all these categories of personnel was begun in June 1965 but was interrupted by the 1965 war in August. The program was actually launched in October 1965. The district administrative personnel are trained by the Provincial Family Planning Boards with the assistance of the Research and Evaluation Centers. Each Province has four mobile training teams which move from district to district giving in-service training to the Family Planning

Officers and Lady Organizers. The medical and paramedical personnel are trained at the seven Training-cum-Research Institutes. Technical supervision of the medical and paramedical personnel is the responsibility of the District Technical Officer, who in turn is responsible to the Civil Surgeon/District Health Officer. The FPO is responsible for the supervision of the Lady Organizers (dais) and the Distribution Agents. However, the male FPO cannot in fact personally supervise the dai as she discusses family planning with the village women. The dai's efficiency is low; 30,000 dais are responsible for referring only 60,000-70,000 IUD acceptors each month, an average of a little more than two per worker.

Inspection and evaluation of the program activities are conducted by the two Central Evaluation Units in each Province, which are responsible for reporting directly to the Secretary of Family Planning on regular inspections of the functioning of the Scheme. During 1966-67 there was also in operation a Socio-Administrative Research Unit which was responsible for quarterly inspections of the Program, during which high-level government officials from other departments were invited to examine the field operations. This was useful for the program personnel and helped to acquaint the officials with the effect of the program on the rural population.

Feedback: The system of reporting service statistics has worked reasonably efficiently. Reports from the districts have been compiled and have usually been in the hand of the President within six weeks after the end of the month. Acceptors rose steadily each month from the beginning of the present Scheme in 1965 until October 1968. Through June of 1969 approximately 2.5 million IUDs and 0.8 million vasectomies were reported.

Budget. Of the Rs. 284 million (US \$60 million) allocated for the five-year period, Rs. 11 million is assigned to the Centre and Rs. 136.5 million to each Province. This total can also be divided into Rs. 96 million for administration, training, and research, and Rs. 188 million for materials and incentives. This 284 million rupees represents 12.3 per cent of the Health

² The term "dais" in Pakistan refers to untrained indigenous midwives, generally illiterate. The term "lady organizer" has been applied to those dais enrolled in the program who sell conventional contraceptives and who motivate and refer family planning clients.

Budget and 3.6 per cent of the entire development budget for this Plan period.

RESEARCH AND EVALUATION

The Pakistan Family Planning Program has placed substantial emphasis on research and evaluation. From early small-scale pilot studies and data collection from specialized segments of the population, larger studies involving provincial and national samples have emerged. The program has excelled in prompt monthly reporting of service statistics, though empirical validation is needed in some areas, particularly in reported sales of conventional contraceptives. Because the monthly reporting and record-keeping system appears to demand excessive time of the field staff, revision of service statistics is planned. The more difficult job of carrying out systematic surveys on fertility and mortality trends was undertaken late in the Third Five-Year Plan period, and efforts have been made to improve vital registration procedures. Substantive studies of oral contraceptive acceptability and logistics of distribution have lagged behind research on other types of contraceptives, particularly the IUD. Research organizations have reported an impressive number of studies (154 different completed and on-going studies as of March 1969 were listed in the Second Edition of *Inventory of Family Planning Research in Pakistan*, National Research Institute of Family Planning, May 1969). Since 1967 increasing attention has been given to collaborative studies and to coordinated planning of studies which might produce more comparable findings (for example, IUD Retention Surveys and the Impact Survey). With the establishment of the National Research Coordination Committee in 1968 this trend toward coordination in the use of limited resources has increased. The planned establishment of two provincial Training, Research, and Evaluation Centers, as well as population studies units in several universities, should facilitate a sound research and evaluation program in family planning. Greater participation from universities and other organizations has been needed, both to

strengthen the program and to improve research in universities.

Research and evaluation of the family planning program in Pakistan has been the responsibility of the Central Family Planning Council. Following are some of the highlights of recent research findings. Since 1965 there has been an improvement in research and evaluation capabilities. Findings from major studies now underway, such as the National Impact Survey (a study of fertility change and knowledge, attitude, and practice of family planning in relationship to program inputs), and studies of acceptance of various contraceptives should provide additional guidelines for program direction.

IUD. Through the end of June 1969 a total of 2,452,968 initial IUD insertions had been reported (Table 1). Early studies of IUD acceptance and continuity of use were initiated by the National Research Institute of Family Planning. Retention rates of about 75 after one year by clients of 12 family planning clinics provided this level as an assumed rate in the National Program. Province-wide IUD retention surveys in 1967, conducted by the West Pakistan Research and Evaluation Centre (WEPREC) in West Pakistan and East Pakistan Research and Evaluation Centre (EPREC) in East Pakistan, showed national retention rates as follows: 6 months, 73; 12 months, 63; 18 months, 54; and 24 months, 47. East Pakistan's rates were higher than those of West Pakistan. Find-

ings from the 1967 study and more recent studies indicate that retention rates have probably declined since the earlier years of the Program. Among the characteristics of IUD acceptors, somewhat less than half are under 30 years of age but around 40 per cent have six or more living children. Probably because of earlier marriage of women in East Pakistan IUD acceptors there are younger than in West Pakistan, though parity levels of acceptors are similar in the two Provinces.

Conventional contraceptives. During the first two years of the Program conventional contraceptives were second to IUDs in contributing to "couple years of protection" against pregnancy. By the end of June 1969 about 479 million units of conventionals had been reported sold through the Program. Monthly reported sales for six-month periods have increased from 3.3 million units in the period July-December 1965 to 14.1 million units in the period January-June 1969. Very limited research findings to date tend to corroborate the assumption adopted in the Pakistan program that about 100 units of conventionals are used per couple per year. Further information on purchase and use of conventionals will soon be available from the National Impact Survey and other, smaller studies.

Sterilization. The assumption at the beginning of the current Family Planning Program was that acceptance of sterilization would be minimal. Thus, targets of 22,500 vasectomies and

TABLE 1. *Monthly Average Performance for Six-Month Periods, Pakistan Family Planning Program, July 1965-June 1969*

Monthly averages	IUD	Sterilizations	Units distributed conventional contraceptives (in thousands)
July-December 1965	9,446	194	3,284
January-June 1966	35,762	770	3,865
July-December 1966	44,818	3,989	6,206
January-June 1967	53,233	4,133	9,492
July-December 1967	59,224	21,197	12,751
January-June 1968	70,102	23,271	14,601
July-December 1968	74,041	45,980	16,125
January-June 1969*	65,340	28,928	14,134
Cumulative performance:	2,452,968	770,373	479,155

* With the change in government on 25 March 1969 and subsequent shifts in administration of the Family Planning Program, one might expect some change in contraceptive performance, such as the downward trend in the first half of 1969.

tubeligations were set for each wing over the five-year period. By the end of the first year, June 1966, reported cases stood at 5,400. With unanticipated acceptance of vasectomy the total number of sterilizations reported by the end of June 1969 was 770,373—the great majority from East Pakistan. Some preliminary findings for vasectomy clients indicate the following: (1) The median age of clients is around 40 years and the median age of their wives is around 32. (2) The average number of living children is between four and five, and the average number of living sons is between two and three. (3) A system of "unofficial referral agents" has emerged in East Pakistan in which the referrer has been given voluntarily a part of the incentive fee paid to doctors doing vasectomies.

Oral contraceptives. Oral contraceptives have not yet been introduced as one of the methods in the Family Planning Program. Research on acceptability and continuity of use was started before the current program began. More recently studies of orals include experimentation with dosage levels, effects of orals on lactation and liver function, and acceptability of orals in relationship to varying types of program inputs. Experience thus far with clinic-based distribution of oral contraceptives as compared with distribution outside clinics strongly indicates that effective use of oral contraceptives will depend on house-to-house distribution by paramedical personnel. Continuation rates using Ovulen 1 mg. in a 21 + 7 placebos (continuous) pack at eight urban family planning clinics in Lahore, Karachi, and Hyderabad were (in per cents) 46.9 at one month, 22.6 at three months, and 10.6 at six months. By contrast, house-to-house distribution by 10 supervised illiterate midwives in Rajshahi District of East Pakistan resulted in continuation rates of 93.8 at one month, 89.6 at three months, 77.4 at six months, and 62.8 at 12 months. Experimental studies currently being done by the National Research Institute of Family Planning (NRIFF) in five Karachi hospitals on dosage levels of micro-dose progestin (without estrogen, in daily administration) using Megestrol Acetate tablets 0.5 mg. and

Megestrol Acetate oil-filled gelatine capsules 0.5 mg. show: (1) that protection from pregnancy is more effective with the capsules than with the tablets, and (2) cumulative continuation rates of the two types appear about the same (rates in per cents of 66.7 at one month and 49.2 at three months for capsule users compared with continuation rates of 65.1 at one month and 46.7 at three months for tablet users).

Assessment of births averted. In the absence of a reliable vital registration system and lacking, thus far, survey data against which to measure fertility change since the program began, the program has depended on service statistics to estimate the effect of contraceptive use on fertility. At the beginning of the program a "Couple Year Protection" index (CYP) was formulated to provide a summarizing measure of the contribution of various methods accepted toward protection against pregnancies. With some revisions having been made in the formulation, the current computed value of CYP for each month's contraceptive performance is based on assigning a value of 2.5 CYP for each IUD insertion, 7.5 CYP for each sterilization, and 0.01 CYP for each unit of conventional contraceptives reported as sold. Work is currently under way to convert these data into estimates of births averted through the program. It is anticipated that data from the National Impact Survey will provide estimates of births averted.

Private Efforts

VOLUNTARY ASSOCIATIONS

While not an exhaustive listing, the following voluntary associations have been involved in family planning activities: the Family Planning Association of Pakistan, with branches in Lahore, Karachi, Rawalpindi, and Dacca; the All-Pakistan Women's Association (APWA); the Maternal and Child Welfare Association in Lahore; and the Pakistan Red Cross.

CONTRACEPTIVE SALES THROUGH PRIVATE SECTOR

No condoms are manufactured in Pakistan; they are imported free of licensing requirements from the

United States, United Kingdom, Japan, and China. Foam tablets are manufactured in Pakistan and some are imported under license from Germany, Japan, and the United Kingdom. Creams and jellies are imported from the United Kingdom; and six pharmaceutical companies import bulk powder for tableting oral pills in Pakistan.

A study in 1967 estimated private-sector sales of condoms in 1966 at 21,000 gross; commercial imports of foam tablets at about 16,000 dozen; creams and jelly imports at about 9,000 tubes; and diaphragm imports at 700. Imports of oral pills in 1966 were about 250,000 packets.

Educational and Scientific Efforts in Population

There are a number of government agencies, semi-autonomous bodies, and university-related institutes which are concerned with population matters.

PLANNING COMMISSION

The Planning Commission in the President's Secretariat is concerned with the overall relationships between population growth and socio-economic development. The Commission's responsibilities include the preparation of national plans at periodic intervals (usually five years); the preparation of detailed annual plans with allocation of resources; the reporting of progress toward planned objectives; and the assessment of human and material resources. The Planning Commission, located in Islamabad, works in coordination with the Provincial Planning Boards in Lahore and Dacca which submit provincial requirements to the Central Planning Commission for consolidation.

CENSUS BUREAU

The Bureau of the Census is headed by a Census Commissioner appointed temporarily to conduct each decennial Census; the next Census will be conducted in 1971.

CENTRAL STATISTICAL OFFICE

The Central Statistical Office (CSO) in the Economic Affairs Division of

the President's Secretariat is responsible for national sample surveys of labor force, manpower, etc. It participated in the Population Growth Estimation project from 1962 to 1965 and is currently responsible for the Population Growth Survey.

PAKISTAN INSTITUTE OF DEVELOPMENT ECONOMICS

The Pakistan Institute of Development Economics (PIDE), an independent institute within the Ministry of Education, serves as the primary research organization conducting economic research related to Pakistan's development.

VITAL REGISTRATION OFFICE

The Central Health Department's Vital Registration Office, along with Provincial counterpart offices, collects limited vital statistics.

UNIVERSITIES

The Institute of Statistical Research and Training at the University of Dacca provides training and research in basic and applied statistics, including demographic statistics. The Social Science Research Center, the Institute of Statistics, and the Department of Sociology at the University of the Punjab in Lahore have all been engaged in some demographic and family planning research. Since 1961 the Pakistan Academy for Rural Development (PARD), established in 1958 in Comilla, East Pakistan, has conducted family planning research in connection with its action program.

MEDICAL COLLEGES

In the medical research field there are ten medical colleges in which there is some interest in family planning services and limited research in their Department of Obstetrics and Gynecology (seven in West Pakistan and three in East Pakistan). In addition, there are 19 institutes or departments of medical colleges and other universities in which research in reproductive biology is conducted (12 in West Pakistan and seven in East Pakistan).

Foreign Assistance

Foreign assistance since 1959 has totalled \$32.1 million.

POPULATION COUNCIL

The Population Council has supported the Demographic Division of the Pakistan Institute of Development Economics, the University of the Punjab Social Sciences Research Center, the Population Growth Estimation project, the Pakistan Academy for Rural Development (Comilla), the Institute of Statistical Research and Training, and some medical research projects at the National Research Institute of Family Planning to the extent of \$864,000 since 1959. The local manufacture of loops has been facilitated through assistance from the Population Council.

ROCKEFELLER FOUNDATION

The Rockefeller Foundation made the first grant of \$200,000 to Johns Hopkins University and the University of the Punjab for the establishment of the MESOREP project in Lahore, the predecessor of the West Pakistan Research and Evaluation Centre (WEPREC).

FORD FOUNDATION

The Ford Foundation has provided the major share of Foundation support to the Family Planning Council under the Third Five-Year Plan for the West Pakistan Research and Evaluation Centre, the East Pakistan Research and Evaluation Centre (EPREC), and the National Research Institute of Family Planning for research and evaluation and for fellowship training abroad. It has also been a major supporter of the Comilla Academy (Pakistan Academy for Rural Development). Since 1960 Ford Foundation grants have totalled \$3.8 million.

SWEDISH INTERNATIONAL DEVELOPMENT AUTHORITY

The Swedish International Development Authority has provided \$4,940,000 for the Family Planning Council in Pakistan since 1965; a major expenditure has been for the purchase of Japanese condoms.

AGENCY FOR INTERNATIONAL DEVELOPMENT

Since 1966 the Agency for International Development has given budgetary and extrabudgetary support to

the Pakistan Family Planning Division for \$3,784,000 and rupees 66,665,000. The dollar grants have been for commodities (including vehicles), fellowship training, and advisory support. The extrabudgetary rupees have been used in developing research and evaluation techniques and in supporting the United Nations Evaluation Team and the Dacca International Family Planning Conference, in 1969.

OTHER

Since 1965 the International Planned Parenthood Federation has provided \$4,260,370 for the Family Planning Association of Pakistan. UNICEF since 1966 has provided vehicles and commodities worth \$653,000. UNESCO has provided support to the Pakistan National Scientific Technical Documentation Centre (PANSDOC). The Netherlands government has signed a contract with the government of Pakistan for a grant of \$305,042 to support five anthropologists in a social science research project. The United Kingdom has made a grant of \$71,476 for commodity support, principally aerosol foams.

Major Publications

It is beyond the scope of this presentation to list the numerous published reports which have emanated from the Pakistan Family Planning Program. In addition to monthly and annual reports issued by the various units in the Program, the following are the major periodicals published: *Pakistan Journal of Family Planning* (biannually, National Research Institute of Family Planning), *Proceedings of Biannual Research Seminars on Family Planning* (biannually, National Research Institute of Family Planning), *Inventory of Family Planning Research in Pakistan* (annually, National Research Institute of Family Planning), *Family Planning Review* (quarterly, Family Planning Council), and *News and Views* (quarterly, East Pakistan Research and Evaluation Centre).

Summary

Accomplishments in family planning in Pakistan since 1965 have been impressive. A well-organized and effective administrative structure has been established, utilizing the services of

about 100,000 persons on a full-time or part-time fee for service basis. A nationwide distribution system for contraceptive supplies has been set up. By the end of June 1969 about 2.5 million IUDs had been inserted, 770,373 sterilizations performed, and 479 million units of conventional contraceptives distributed. A system for monthly reporting of service statistics provides national data printed for distribution within six weeks from the end of a given month. Substantial attention is given to research and evaluation in the program. While survey data on changes in fertility are not as yet available, a National Impact Survey incorporating measures of fertility and knowledge, attitude, and practice of family planning is being conducted and other studies are under way.

The achievements of the Pakistan Family Planning Program can be summarized in a paraphrase of the United Nations Evaluation Team report of May 1968: (1) a well-organized and effective administrative structure has been set up; (2) knowledge of the purpose and method of family planning is widespread and an acceptable subject for discussion; (3) systems for the provision of clinical services and contraceptive supplies function to make family planning practice possible throughout most of the country; (4) the Pakistan Program is striving to gain general acceptance of family planning under conditions of high illiteracy, unfavorable levels of unemployment and underemployment, and low per capita income in a predominantly agrarian and traditional society; in view of these problems, Pakistan has made remarkable progress under the Third Five-Year Plan.

Up to April 1969 the government continued to give firm support to the Family Planning Program. In view of the developments described below, some changes can be expected.

PROGRAM REVISION

In February and March 1968, the Pakistan Family Planning Program was the subject of a detailed evaluation made by a team of seven experts from the United Nations and the World Health Organization. The final report was officially released in June

1969, though a summary statement appeared earlier. As a result of a number of recommendations, certain program changes are being envisaged for the Fourth Five-Year Plan. In East Pakistan several inactive dais have already been dispensed with, and a Chief Male Organizer (CMO) for each Union Council has been hired to replace two dais. The monthly stipend for the CMO is Rs. 30. He is responsible for improving the work of the dais in his Union Council, keeping proper sales records, and assisting in motivational work.

FOURTH FIVE-YEAR PLAN PROPOSAL

In October 1969 a revised Fourth Five-Year Plan proposal was submitted to the Planning Commission which is now under consideration by the National Economic Council. A budget of 606 million rupees (US\$121 million) is proposed for the five-year period.

The salient features include: (1) broadening the contraceptive methods offered to include oral contraception and greater emphasis on female sterilization; (2) gradual replacement of illiterate dais as the basic field workers by a male and female literate team located at each Union Council with a population of 10,000. These workers will be responsible for listing the 1500-1700 fertile couples in their area, educating them to accept family planning by whatever method, providing follow-up and reassurance and encouraging them to continue practice. In this way the longitudinal contraceptive history with records of failure (pregnancies) will provide a means for evaluation of the program.

Supervision for this team will be provided by a Family Planning assistant for each three Union Councils. There is to be a district level training team for pre- and in-service training.

The training of family planning visitors will be broadened to include more aspects of family health and nutrition and accelerated to provide for 1,300 LFPVs for each wing or one for each three Union Councils.

The Family Planning Council has been augmented to include, besides official representatives of the Ministries of Health and Finance, ex-officio representatives for the Medical Association, Family Planning Association,

All-Pakistan Women's Association, Social Welfare, Red Cross, Maternal and Child Welfare Association, and universities.

The original Notestein report concerning the Population Studies Center has been modified to provide for four university-based nuclei with a professor and three readers to give courses in population to the social and medical science students. The Dacca Center will have the larger budget to co-ordinate research activities.

The training, research, and evaluation activities now carried on in five institutions—West Pakistan Research and Evaluation Centre, East Pakistan Research and Evaluation Centre, Central Evaluation Units, Lahore and Dacca, and the National Research Institute of Family Planning—are to be combined into one center located in each provincial capital, to be known as TREC, Training, Research, and Evaluation Centre. These centers will be directed by a governing board, comprised of representatives from the Family Planning Council and the Provincial Family Planning Boards. It is thus planned to co-ordinate more effectively action-oriented research, nationally conducted surveys and training for the paramedical and middle level personnel, Family Planning Officers, and District Executive-cum-Publicity Officers.

A recent proclamation by the President and Chief Martial Law Administrator, General Yahya Khan, will result in some modifications in the operation of the Family Planning program in the future, as well as in other government programs.

REFERENCES

- Adil, E. "Pakistan Family Planning Programme." *Family Planning and Population Programs*. Edited by B. Berelson, et al., University of Chicago, 1966. pp. 123-134.
- Adil, E., and J. G. Hardee. "Pakistan: The Family Planning Program, 1965-67." *Studies in Family Planning*, (26): 4-11. January 1968.
- Bean, L. L., M. R. Khan, and A. R. Rukanuddin. *Population Projections for Pakistan, 1960-2000*. The Pakistan Institute of Development Economics, January 1968.

Gauhar, A. *Twenty Years of Pakistan, 1947-67*. Pakistan Publications, 1968.

Hashmi, S. S. *Main Features of the Demographic Conditions in Pakistan*. Background paper for the Asian Population Conference, New Delhi, 10-20 December 1963. The Pakistan Institute of Development Economics, 1963.

Hashmi, S. S. *Report of the Population Growth Estimation Experiment: Description and Some Results for 1962 and 1963*. Pakistan Institute of Development Economics special publication.

Khan, A. H., and H. M. Choldin. "A Commercial System for Introducing Family Planning in Comilla, Pakistan." *Family Planning and Population Programs*. Edited by B. Berelson, et al., University of Chicago, 1966. pp. 477-486.

Mauldin, W. P., and S. S. Hashmi. "Illustrative Estimates and Projections of the Population of Pakistan, 1951-1991." *Population Growth and Economic Development with Special Reference to Pakistan*. Edited by M. L.

Qureshi. Pakistan Institute of Development Economics special publication, 1959. pp. 61-84.

Pakanek, G. F. *Pakistan's Development*. Oxford University Press, 1968.

Planning Commission, Government of Pakistan. *The Second Five-Year Plan, 1960-65*.

Planning Commission, Government of Pakistan. *Socio-Economic Objectives of the Fourth Five-Year Plan, 1970-75*.

Planning Commission, Government of Pakistan. *The Third Five-Year Plan, 1965-70*.

Qureshi, M. L. (ed.). *Population Growth and Economic Development with Special Reference to Pakistan*. Pakistan Institute of Development Economics special publication, 1959.

Seltzer, W. *Benchmark Demographic Data for Pakistan: A Review of Summary Estimates Derived from the PGE Experiment*. Research Report (66), The Pakistan Institute of Development Economics, March 1968.

West Pakistan Research and Evaluation Centre and East Pakistan Research and Evaluation Centre. *Pakistan IUD Retention Survey, 1967*. Paper presented at the Pakistan International Family Planning Conference, Dacca, January 28-February 4, 1969.

This is part of an information service provided by The Population Council and The International Institute for the Study of Human Reproduction, Columbia University, under a grant from The Ford Foundation.

Other Country Profiles published to date are:

Hong Kong (November 1969)

Iran (December 1969)

Sierra Leone (September 1969)

Thailand (May 1969)

Turkey (January 1970)

Taiwan (February 1970)

United Arab Republic (August 1969)